UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,017	11/14/2000	William A. Perry JR.	020533.0197	8679

7590 11/16/2005

Baker Botts L.L.P.
2001 Ross Avenue
Dallas, TX 75201-2980

EXAMINER	
AVELLINO, JOSEPH E	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/712,017	PERRY ET AL.	
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-14,16-18,21-26,31-33,35-41,61,68,69 and 71-79* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-14,16-18,21-26,31-33,35-41,61,68,69 and 71-79* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 5-14, 16-18, 21-26, 31-33, 35-41, 61, 68, 69, and 71-79 are pending in this examination.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 5, 7, 11-14, 16, 18, 21, 25, 26, 31, 33, 35-39, 41, 61, 68, 72-77, and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by Romohr (USPN 5,596,723) (cited in Final Rejection dated February 10, 2005).

3. Referring to claim 5, Romohr discloses a method of providing automated assistance in configuring customer premises equipment for communication with another network element, comprising:

automatically identifying at least one of a valid virtual channel and a protocol valid for configuration with the customer premises equipment without prompting a user for information that directly or indirectly identifies the at least one of the valid virtual channel and the valid protocol, the valid virtual channel being a communications link (i.e. transmitting broadcast inquires using various frame protocols across the network) (e.g. abstract);

assisting a user in configuring the customer premises equipment for use with the identified virtual channel and/or protocol (i.e. configures itself according to the most prevalent network operating system and frame type being used in the network) (e.g. abstract; Figure 4E);

communicating over a virtual channel and toward a destination network element (it is inherent that any communication from one entity must be sent to a destination entity, even if the sender is the destination entity) a probing configuration signal, the valid virtual channel being a communications link (e.g. abstract);

receiving over the virtual channel a response to the configuration signal (i.e. counts the network operating system specific responses for each of these supported frame types) (e.g. abstract; Figure 3C, ref. 340); and

identifying as valid for configuration the at least one of the valid virtual channel and the valid protocol associated with the response (i.e. configuring the equipment based on the most prevalent network OS and frame type) (e.g. abstract);

wherein communicating the probing configuration signal comprises communicating a plurality of probing configuration signals, each signal associated with a different of the at least one of the valid virtual channel and the valid protocol (Figure 3C, ref. 332-340).

4. Referring to claim 7, Romohr discloses a signal having a self configuring protocol (i.e. ARP) (Figure 3E, ref. 352-354).

5. Referring to claims 11 and 12, Romohr discloses communicating the probing configuration signal over a plurality of virtual channels likely to return a response (i.e. frame types used in the networks) (Figure 5-5A).

6. Referring to claim 13 and 14, Romohr discloses communicating the signal over a first virtual channel, and sending a second signal over a second and same virtual channel before a time out associated with the channel or signal expires (i.e. sending multiple inquiries using different frame types before the number of times has been expired) (Figure 3C, all).

7. Referring to claims 16, and 18, Romohr discloses communicating the probing configuration signals approximately simultaneously (i.e. one right after another) (Figure 3E).

8. Referring to claims 21 and 25, Li discloses communicating a diagnostic signal (i.e. probing signal) toward a destination network (e.g. abstract); and

determining and reporting on the connectivity of a network layer (i.e. physical layer, which is considered a network layer according to the OSI standardized model of network implementation) based on whether a response to the diagnostic signal is received (if the connection is unsuccessful, an error message is displayed) (e.g. abstract).

9. Referring to claim 26, an inherent feature of any computer on a network is that it contains a modem.

10. Claims 31, 33, 35-39, 41, 61, 68, 72-74, are rejected for similar reasons as stated in the claims above.

11. Referring to claim 75, Romohr discloses displaying the valid virtual channel and protocol to a user, receiving the user's selection and configuring the customer premises equipment for operating using the selected channel and protocol (the computer automatically configures based on the prevalent network type, however the user can manually override this based on desired selection, therefore is able to receive a user selection) (e.g. abstract; Figures 4J-M).

12. Claims 76-77, and 79 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 6, 8-10, 22-24, 32, 69, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romohr.

14. Referring to claim 6, Romohr discloses the invention substantively as described in claim 5. Romohr does not specifically disclose the probing configuration signal comprises an F5 Operations, Administration, and Maintenance (OAM) loopback signal. However, it is well known and that the ATM networking standard includes various types of OAM cells that carry OAM related information that are used in administrative and supervisory actions and would provide a beneficial protocol to test for in the system of Romohr. Therefore it would have been obvious to include OAM signals to the system of Romohr to further provide more efficient transfer of network monitoring information and supervisory messages to network elements, resulting in enhanced failure detection.

15. Referring to claim 8, Romohr discloses the invention substantively as described in claim 7, however does not specifically disclose the probing configuration signal includes a DHCP request, however it is well known in the art that computers utilize DHCP requests in a network to determine network connectivity and to determine which addressing modes are used in the network. By this rationale it would have been obvious to one of ordinary skill in the art to include DHCP in the protocol requests transmitted by Romohr in order to further simplify the system disclosed as well as to provide more efficient network component detection.

16. Referring to claim 9, Romohr discloses the invention substantively as described in claim 8. Romohr does not specifically disclose the protocol comprises an Internet over ATM protocol, however it is well known that the Internet over ATM protocol is

widely used in networks for its reliability and ability to allow multiple networks to communicate with one another. Therefore would have been obvious to one of ordinary skill in the art to incorporate the Internet over ATM protocol to the system of Romohr to allow the internetworking of multiple LAN systems further enhancing data exchanging and message transfer.

17. Referring to claim 10, Romohr discloses the invention substantively as described in claim 8. Romohr does not specifically disclose the protocol comprises a Point to Point over ATM protocol or Point to Point over Ethernet protocol, however it is well known that both of these protocols are widely used in networks for its reliability and secure communications between computing systems. Therefore would have been obvious to one of ordinary skill in the art to incorporate these protocols to the system of Romohr to allow further robustness of the system and provide further enhanced customer service to those users who use those protocols.

18. Referring to claim 22, Romohr discloses the invention substantively as described in claim 21. Romohr does not specifically disclose the diagnostic signal comprises a PING signal operable to test an IP layer of the network, however it is well known that a PING signal is used widely to test and determine if a network element is connected (it is well known that hackers routinely ping random IP addresses to determine which IP addresses are in use by which addresses are able to return signals to the source computer). Therefore, it would have been obvious to one of ordinary skill in the art to

incorporate a PING signal operable to test an IP layer of the network to determine if a network server is available to communicate with the interconnecting device of Romohr in order to determine which server to use in order to appropriately configure the customer premises equipment thereby providing more reliable connections and further enhancing customer service.

19. Referring to claim 23, Romohr discloses the invention substantively as described in claim 21. Romohr does not specifically disclose the diagnostic signal comprises a DNS signal operable to test a transmission layer of the network, however it is well known that a DNS signal is used widely to test and determine if the network element is connected and able to determine their appropriate location and to what network service they are connected (when a network client is connected to a network the first time, it is routine that the computer locate the DNS server in order to configure itself with the network for settings such as name server IP address resolution, etc.). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate a DNS signal operable to test a transmission layer of the network to determine if a network server is available to communicate with the interconnecting device of Romohr in order to determine which server to use in order to appropriately configure the customer premises equipment thereby providing more reliable connections and further enhancing customer service.

20. Referring to claim 24, Romohr discloses the invention substantively as described in claim 21. Romohr does not specifically disclose the diagnostic signal comprises a HTTP request signal operable to test a application layer of the network, however it is well known that an HTTP signal is widely used to test and determine if the network element is connected and able to determine their connection capabilities under stress (numerous web server load testing systems will issue numerous HTTP GET requests in order to determine the capabilities of a particular server; furthermore it is widely known that Denial of Service attacks on servers by hackers use a flooding technique of HTTP requests in hopes to overload the server in order to produce a crash of the system). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate an HTTP signal operable to test a application layer of the network to determine if a network server is available to communicate with the interconnecting device of Romohr in order to determine which server to use in order to appropriately configure the customer premises equipment thereby providing more reliable connections and further enhancing customer service.

21. Claims 32, 69, and 78 are rejected for similar reasons as stated above.

Claims 17, 40, and 71, are rejected under 35 U.S.C. 103(a) as being unpatentable over Romohr in view of Marullo et al. (USPN 6,185,701) (hereinafter Marullo).

22. Referring to claim 17, Romohr discloses the invention substantively as described in claim 16. Romohr further discloses communication a probing configuration signal over a plurality of virtual channels (see rejection for claims 11 and 12). Romohr does not disclose spawning a plurality of threads, and monitoring the probing configuration signal associated with each virtual channel using a separate thread. Marullo discloses spawning a plurality of threads (col. 21, lines 25-35), and monitoring the probing signal associated with each virtual channel (it is taken that each thread sets up its own virtual channel in order to communicate with the Internet) (col. 21, lines 24 to col. 22, line 17). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Marullo with Romohr to increase the functionality provide by the system while reducing the amount of human error allowed and the subsystem is fully automated and run without user intervention, thereby freeing up users for other activities as supported by Marullo (Col. 22, lines 1-17).

23. Claims 40, and 71 are rejected for similar reasons as stated above.

Response to Arguments

24. Applicant's arguments filed October 21, 2005 has been fully considered but they are not persuasive.

25. In the remarks, Applicant argues, in substance, that (1) Romohor does not disclose identifying a valid virtual channel by sending a signal over a virtual channel, (2)

Romohor does not prompt a user for information that identifies the valid protocol, (3) it would not be obvious to communicate an OAM signal, a DHCP signal, DHCP request, LCPC packet, PpoE PADI packet.

26. As to point (1) Applicant will appreciate that what is automatically identified is the valid protocol, not specifically the virtual channel. By this rationale, the rejection is maintained.

27. As to point (2) the Office respectfully disagrees. Figure 4E is merely a confirmation page to the valid protocol picked by the computer. In no way does Figure 4E disclose "identifying a valid protocol" and "prompting a user for information that directly or indirectly identifies the valid protocol". The user never identifies the protocol, the AutoSetup program selects the network configuration. The user input is to accept these values. Nowhere in the AutoSetup program is it required that the user is needed to identify the correct network protocols. By this rationale, the rejection is maintained.

28. As to point (3), Applicant has failed to seasonably challenge the Examiner's assertions of well known subject matter in the previous Office action(s) pursuant to the requirements set forth under MPEP §2144.03. A "seasonable challenge" is an explicit demand for evidence set forth by Applicant in the next response. Accordingly, the claim limitations the Examiner considered as "well known" in the first Office action, are now

established as admitted prior art of record for the course of the prosecution. See In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943).

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA
November 4, 2005

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER